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ABSTRACT

This document presents an unbiased statement about changes in demographics and about the needs of business and industry that may require changes in secondary vocational education. The first part defines and describes vocational education. Part 2 is an historical overview of the changes in vocational education legislation, population demographics, and the environment of business and industry. Part 3 presents a summary of the major national studies on the condition of American education. These studies suggest that vocational education should be examined to meet the needs of a changing population and a new economic base. In part 4, the New Jersey environment is examined to determine whether there are indicators of a need for change in vocational education in the state at this time. It focuses on 10 indicators of the need to study the structure of secondary vocational education in New Jersey. Part 5 presents the goals, principles, and planning assumptions that reflect changing demographics and the changing needs of business and industry upon which vocational education in New Jersey should be based. The final section, part 6, outlines a process for the development of a plan for the structure of secondary vocational education in New Jersey. An extensive bibliography concludes the document. (YLB)

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INTO THE TWENTY-FIRST CENTURY:

COMPREHENSIVE PLANNING FOR SECONDARY VOCATIONAL EDUCATION IN NEW JERSEY

Thomas H. Kean
Governor

Saul Cooperman
Commissioner of Education

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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New Jersey State Department of Education
July 1987

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The purpose of this paper is to present an unbiased statement about changes in demographics and the needs of business and industry which may require changes in secondary vocational education. However, it was difficult to write because the body of recent literature dealing with vocational education contains more opinion than data-based conclusions. The task was made possible by the reading, editing and re-reading of many people. Those listed below were of principal assistance. To them, I offer thanks.

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GORDON ASCHER
June, 1987

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INTO THE TWENTY-FIRST CENTURY: COMPREHENSIVE PLANNING FOR SECONDARY VOCATIONAL EDUCATION IN NEW JERSEY

EXECUTIVE SUMMARY

Vocational education has been an integral part of secondary level education in New Jersey's schools for more than 75 years. During this time, secondary vocational education has sought to provide occupational skills and to develop and maintain a work force supportive of the needs of business and industry. Over the years, educators have responded to the changing needs of students and business in a variety of ways, but these modifications have been mostly adaptive rather than systematic. In order to keep New Jersey's business and industry competitive, a vocational education system that combines training in academics, employability skills and occupational skills is required.

Many questions have been raised in recent years about secondary vocational education and its structure. Various reports indicate that employers want workers to come to the job market with basic skills preparation; that rapid technological advances require employees who can adjust to change; and that changes in demographics will have an impact on education and the world of work. However, these calls for change are rarely accompanied by substantive reasons or specific proposals.

The New Jersey State Department of Education will examine the structure of secondary vocational education in the state's public schools. Based on this examination, a comprehensive plan for secondary vocational education in New Jersey will be developed based on the goals and principles described.

Goals

- All secondary vocational education students will attain the same level of basic skills as nonvocational students in New Jersey.

- Secondary vocational education occupational training programs should result in the student obtaining a job in the occupation for which he or she was trained, or in a related job.

Principles

- Educational programs for all public school students must prepare students for a future filled with rapid and dramatic change. When students leave New Jersey public schools, they must have a broad base of skills.

- Occupational skills without the basic skills do not prepare students for an uncertain future. Students face a lifetime of training and retraining in the workplace. New Jersey schools must provide a broad base on which that training can be built. Students

must be able to read, write and compute whether in a vocational education class or nonvocational class.

- Vocational programs are important options for some students. However, those students must also be required to meet the new, more rigorous standards of the High School Proficiency Test (HSPT) and the core graduation requirements which provide a broad foundation for all students.

- Vocational education programs should be designed to prepare students for entry into jobs for which they have been trained. As a consequence of devoting instructional time and resources to vocational education programs, students must be assured that their education will result in employment in jobs for which they were trained. Therefore, the content of vocational education programs must be sensitive to job market requirements.

A panel of national and state experts, called the Panel on Secondary Vocational Education in New Jersey, will be appointed by the Commissioner of Education. This group will draw upon the extensive knowledge of New Jersey's educational leaders at the state and county levels, as well as on the panel's national perspective and experience.

CHARGE TO THE PANEL

The panel will present recommendations for a future structure and delivery system for secondary vocational education in New Jersey which is responsive to the goals of the State Board of Education.

The panel will convene in September 1987 and meet approximately three times. Following the review of relevant literature and the opportunity to hear public testimony, each panel member will prepare draft recommendations. The full panel will then prepare final recommendations for submission to the Commissioner of Education in the spring of 1988.

The New Jersey State Department of Education will then prepare a comprehensive plan for secondary vocational education in New Jersey.

INTRODUCTION

Vocational education has been an integral part of secondary level education in New Jersey's schools for more than 75 years. Secondary vocational education has sought to provide occupational skills to people for their personal benefit and to develop and maintain a work force to support the needs of business and industry.

This paper presents a historical overview and the need for a study of secondary vocational education in five parts:

- **VOCATIONAL EDUCATION: DEFINED AND DESCRIBED**
- **CHANGES IN POPULATION DEMOGRAPHICS AND IN THE ENVIRONMENT OF BUSINESS AND INDUSTRY**
- **A CALL FOR REVIEW OF VOCATIONAL EDUCATION**
- **THE NEED TO STUDY THE STRUCTURE OF VOCATIONAL EDUCATION**
- **CONCLUSIONS: INTO THE TWENTY-FIRST CENTURY**

This content is not intended to represent a broad, comprehensive review of the literature. It is intended to present an overview of local and national perspective pertaining to vocational education, demographics, and the needs of business and industry as the nation moves into the 21st century.

The final section of this paper,

- **DEVELOPING A COMPREHENSIVE PLAN FOR SECONDARY VOCATIONAL EDUCATION IN NEW JERSEY**

outlines a process for the development of a plan for the structure of secondary vocational education in New Jersey to be developed by national and state educators for submission to the Commissioner of Education.

VOCATIONAL EDUCATION: DEFINED AND DESCRIBED

The New Jersey State Department of Education, Division of Vocational Education, defines and describes vocational education in New Jersey in the introduction to its "Fact Sheet" (1987). Portions of the introduction are reprinted here:

WHAT IS VOCATIONAL EDUCATION?

Vocational education in New Jersey consists of programs, services and activities to help people gain skills, knowledge, and attitudes suitable for employment in productive work of any kind, including the unpaid occupation of homemaking.

HOW DOES VOCATIONAL EDUCATION SERVE STUDENTS?

Prevocational and vocational education programs are available to form a continuous series of experiences from kindergarten through grade 12. Career planning and decision-making skills are enhanced through guidance and assessment programs in the local schools. Hands-on skills development, practical application of theory and on-the-job training prepare students for initial employment or for additional, higher-level education. They are thus prepared to take advantage of a variety of options that will be open to them.

WHERE DOES VOCATIONAL EDUCATION TAKE PLACE?

Vocational education programs are offered in 300 comprehensive high schools, 18 local area vocational school districts and 20 county vocational school districts. Of the students enrolled in occupational programs (grades 11, 12 and ungraded) in 1985, 58 percent attended comprehensive high schools, 13 percent were in local area vocational schools and 29 percent were enrolled in county vocational schools.

WHAT IS THE STRUCTURE OF THE EDUCATIONAL SETTINGS?

Students who attend either comprehensive high schools or local area vocational school districts spend the full school day in their local schools receiving both their required academic courses and their vocational training. The county vocational schools are organized as either full-time or shared-time schools. Full-time vocational schools offer both academic courses and vocational training; the shared-time schools provide vocational preparation while the sending districts enroll students in the academic courses.

WHAT ARE THE SPECIFIC PROGRAMS PROVIDED THROUGH VOCATIONAL EDUCATION?

Prevocational preparation through programs such as Technology for Children (T4C), Introduction to Vocations, Industrial Arts, Employment Orientation, Consumer and Homemaking, Work Experience Career Exploration Program (WECEP) and Work Study are made available to students at the elementary to high school levels.

Occupationally specific training is available on the secondary level to prepare students for more than 1,000 specific job titles. These occupational areas are:

Agriculture/Agribusiness Education
Business Education
Health Occupations Education
Home Economics Related Occupations
Marketing Education
Technical Education
Trade and Industrial Education

Additionally, specific linkages to the world of work and training opportunities are provided through cooperative vocational education and apprenticeship opportunities. These programs provide on-the-job training, related classroom instruction and supervision. In FY 1985 over 12,000 students in cooperative vocational education earned over $32 million.

Complementing vocational education programs are the vocational student organizations serving all occupational areas and Industrial Arts. These associations recognize that classroom experience alone is not sufficient to assure the development of competent, aggressive leadership for tomorrow's business and industry. They also serve as a mechanism for business/industry involvement in vocational education. The following vocational student organizations in New Jersey had 20,730 members in FY 1985:

American Industrial Arts Student Association
Distributive Education Clubs of America
Future Business Leaders of America-Phi Beta Lambda
Future Farmers of America
Future Homemakers of America/Home Economics Related Occupations
Health Occupations Students of America
Vocational Industrial Clubs of America

Vocational Education Goals for New Jersey

The New Jersey State Department of Education has established two primary goals for secondary vocational education in New Jersey.

- All secondary vocational education students will attain the same level of basic skills as nonvocational students in New Jersey.

- Secondary vocational education occupational training programs should result in the student obtaining a job in the occupation for which he or she was trained, or in a related job.

With these goals in mind, the New Jersey Department of Education supports secondary vocational education programs which meet the following principles:

- Educational programs for all public school students must prepare students for a future filled with rapid and dramatic change. When students leave New Jersey public schools, they must have a broad base of skills.

- Occupational skills without the basic skills do not prepare students for an uncertain future. Students face a lifetime of training and retraining in the workplace. New Jersey schools must provide a broad base on which that training can be built. Students must be able to read, write and compute whether in a vocational education class or a nonvocational class.

- Vocational programs are important options for some students. However, those students must also be required to meet the new, more rigorous standards of the High School Proficiency Test (HSPT) and the core graduation requirements which provide a broad foundation for all students.

- Vocational education programs should be designed to prepare students for entry into jobs for which they have been trained. As a consequence of devoting instructional time and resources to vocational education programs, students must be assured that their education will result in employment in jobs for which they were trained. Therefore, the content of vocational education programs must be sensitive to job market requirements.

CHANGES IN POPULATION DEMOGRAPHICS AND IN THE ENVIRONMENT OF BUSINESS AND INDUSTRY

Historical Perspective

A look at vocational education legislation over time (excerpted from Metzel, 1982) reveals that vocational education changed as demographics and social context changed:

The Smith-Hughes Act of 1917. In the early 1900s the United States was evolving from an agriculture society into the world's leading industrial nation; concurrently it was experiencing an increased immigration of large numbers of poor and uneducated people. Public support was increasing for the delivery of agriculture instruction and manual training in the public school system as a means for assimilating uneducated immigrants into the labor market (David, 1980). By 1910, twenty-nine states had added some form of vocational training to their public system, but no formal and consistent system for funding and implementing vocational education existed (Lazerson and Grubb, 1974).

Employers and educational reformers argued that the federal support of traditional academic subjects served an elite minority of college-bound youth and that the federal government had an obligation to support vocational training in the secondary schools for those who wanted an alternative. The National Society for the Promotion of Industrial Education, an organized group of business, labor, and education leaders, which later became the National Society for Vocational Education under the direction of Charles Prosser, won the inclusion of federal support for vocational education in the Smith-Hughes Act of 1917 (Thompson, 1973). The society was supported by such groups as the U.S. Chamber of Commerce and the American Federation of Labor (Barlow, 1967). All of these forces together provided a major impetus for the expansion of the public secondary vocational education system, in all the states, by the Smith-Hughes Act of 1917. From 1917 to 1963, Congress increased the support and broadened the scope of vocational education in several subsequent acts.

The Vocational Education Act of 1963. In the early sixties, civil rights and other social issues had become major national concerns. Congress, in an effort to equalize the civil, social, and economic rights of those who had been denied them, began to draft social amendments for much of the legislation in the health, education, and training fields. The Vocational Education Act of 1963 and its subsequent amendments brought about major social policy changes in the administration of vocational education and significant increases in federal money to implement these changes. In essence, the act shifted the emphasis from occupational categories to groups of people to be served. The new purpose of this act was to maintain, extend, and improve vocational education so that people of all ages in all communities would have equal access and opportunity for high-quality training and retraining that would be realistic with labor market

opportunities and student needs, interests, and abilities (Public Law 88-210, Section 1, 20 U.S.C. p. 2301). Specific provisions were made for the special needs of those with academic, socioeconomic, or other handicaps that prevented them from succeeding in regular programs. The act strengthened postsecondary education by requiring that a minimum of one-third of the full grant had to be spent on those who had completed or left high school for further education, or for the construction of area facilities, or both. The act also appropriated moneys for (1) the construction of area vocational centers; (2) inservice and preservice teacher training; and (3) other program improvements services, such as research and development. Congress recognized the value of citizen input by establishing a National Advisory Council in Vocational Education, which was required to report on the progress of vocational education under the new act by 1968 (Public Law 88-210, Section 4, 9, 12). Federal appropriations progressed from $60 million in 1964 to $225 million in 1967 (Thompson, 1973).

The Carl D. Perkins Vocational Education Act (P.L. 98-524, October 2, 1984). From 1963 to the present, Congress has made vocational education acts increasingly prescriptive as to the populations to be served and has added requirements for planning and evaluation. This act mandates that 57 percent of a state's allotment be used to provide vocational education services and activities designed to meet the special needs of, and to enhance the participation of the following populations:

HANDICAPPED

Vocational education programs for the handicapped will be modified, as necessary, through the use of supplemental or additional staff, equipment, materials and services not provided to other individuals in vocational education. If conditions warrant, separate vocational programs will be designed to meet the needs of the handicapped students served by the eligible recipients.

DISADVANTAGED

Vocational education programs for the disadvantaged will be modified, as necessary, through the use of supplemental or additional staff, equipment, materials and services not provided to other individuals in vocational education. If conditions warrant, separate vocational programs will be designed to meet the needs of the disadvantaged students served by the eligible recipients.

ADULTS

Adult and post-secondary vocational education programs and services will be improved or expanded to train or retrain adults to meet the current labor market needs. These programs will address:

- additional training under JTPA;

- programs for older individuals and displaced homemakers;

- programs for completers or leavers of high school who are enrolled in an associate or other degree program but which are not designed as baccalaureate or higher degree programs;

- programs for completers or leavers of high school which do not award college credit.

SINGLE PARENTS AND HOMEMAKERS

Vocational education programs and services will be expanded and enhanced for single parents and homemakers, including displaced homemakers or other women who are economically disadvantaged. Programs to address the needs of this population will:

- provide, subsidize, reimburse, or pay for vocational education and training, including basic literacy instruction and educational materials necessary to furnish the target population with marketable skills;

- award grants to LEAs for expanding vocational services to provide marketable skills where direct expansion increases access for the target population;

- award grants to eligible community-based organizations to provide vocational education services where that service supplements and increases access to available training programs;

- provide support services, including counseling, transportation, scheduling options and reorganization to increase access to vocational education opportunities; and

- provide outreach on vocational education programs to inform target populations of available services.

Emphasis will be placed on assisting individuals with the greatest financial need as defined by P.L. 98-524. In serving homemakers, the programs will give special consideration to single parents as well as homemakers who because of divorce, separation, desertion, or the death or disability of a spouse must prepare for paid employment.

INDIVIDUALS WHO PARTICIPATE IN PROGRAMS DESIGNED TO ELIMINATE SEX BIAS AND STEREOTYPING

Vocational education programs, services, and activities will be designed to eliminate sex bias and stereotyping in secondary and post-secondary educational institutions.

Vocational education programs, services, and activities will enable young women, aged 14 to 25, to prepare to support themselves and their families, with emphasis on non-traditional training and support services such as child care and transportation for participants in such training.

Program emphasis will center on non-traditional training and support services needed to enter new high technology occupations and/or advancement in new and emerging occupational areas with potential for upward mobility and higher earnings.

Note: Age limit can be waived upon submission of request based on local needs to the State Sex Equity Coordinator for Vocational Education.

CRIMINAL OFFENDERS

Vocational education programs for criminal offenders will be coordinated with the agencies officially designated in state law or local regulation to address the educational needs of the institutional residents.

The term "criminal offenders" means any resident of a prison, jail, reformatory, work farm, detention center or halfway house, community-based rehabilitation center, or any other similar institution designed for the confinement or rehabilitation of criminal offenders.

Congress has also mandated criteria for the distribution of the handicapped and disadvantaged funds provided by the Carl D. Perkins Vocational Education Act to serve the populations described above. These criteria, socioeconomic in nature, strongly favor the urban areas of the state. The non-urban areas of the state, by federal design, have limited access to these funds. The remaining 43 percent of the allotment is designated for the improvement, innovation and expansion of vocational education programs.

There are no discretionary funds available either to the state administration or the local deliverer of the vocational programs for service outside of these federally identified needs. In addition, the use of federal money for most programs requires an equal matching dollar amount from non-federal sources. The matching funds must be used for the same purpose. Thus, the federal law drives not only the expenditure of federal dollars but also non-federal dollars and the programs and services delivered at the local level.

The President's current budget (fiscal year 1989) calls for elimination of the $900 million appropriation for vocational education. The administration defends this by indicating that vocational education produces only small marginal benefits to participants.

Demographic Projections

"Demography is destiny," we are told by Hodgkinson (1986). As demographics change, our educational programs, including vocational education, must change to meet the new needs of people and businesses. Some of the demographic changes reported by Hodgkinson are:

- Eighteen percent of today's 4-year-olds were born out of wedlock.
- More than 45% of them will be raised by a single parent before they reach 18 years of age.
- A higher percentage of 4-year-olds today than in the past do not speak English. Instead, they speak a dazzling array of languages, from Urdu to Mandarin. Spanish is only one of these many languages.
- An increasing number of today's 4-year-olds have physical and emotional handicaps.
- Fifty-four percent of them have mothers who work outside the home, and the children receive some form of day care. By the time they reach school age, two-thirds of their mothers will be working, most of them full-time.
- Twenty percent of the girls among today's 4-year-olds will become pregnant during their teen years.

The National Center for Research in Vocational Education (Lewis and Norton, 1986) also projected change in the near future through an examination of the status of the elderly and the prospects for living longer:

- Because of the low number of births during the Great Depression and World War II, the number of elderly will increase...until the year 2010.
- There is little likelihood of medical advances that would lead to sizable increases in the life expectancy of the elderly in this century. Even the elimination of cancer would add only about 2 years to the life expectancy of those 65 and older.
- About half of those approaching retirement express an interest in continuing to work, primarily on a part-time basis, but actual labor force participation rates among the elderly have been declining for the past 30 years.
- Employment practices and provisions of Social Security and many private pension plans encourage retirement to secure benefits and discourage additional work force participation once one begins to receive these benefits.

- If the economy begins to experience labor shortages, changes are likely to be made in employment practices, Social Security, and private pension plans to encourage older workers to stay in the work force.

Individual states have begun to consider the changing demographics and concomitant changes in their vocational programs. Angelo Tedesco, associate commissioner of education in Connecticut (a state very similar to New Jersey in its population, urban-suburban mix and changing industrial base), who is also the state director of vocational education, recently described the changes occurring in Connecticut's business environment and in its population. In a speech entitled "Where Have All the Children Gone?" Tedesco pointed out that the nation's population is becoming older and more "minority." He stated that social programs, such as welfare reform (job training programs for welfare recipients), are new areas into which vocational education must expand.

An article entitled "Schools of the Future," published in The Futurist (Cetron, Soriano and Gayle, 1985), stated that: "By [the early 1990's] most adults will be working a 32-hour week. During the time that they are not at work, many will be preparing for their next job." This, of course, requires facilities and programs in which to prepare.

The same Futurist article listed "Factors Affecting the Future of Schools":

- Minority populations will become the majority in most grade schools in the nation's large and middle-sized school districts.

- Computers will be available to students in prosperous districts on a 1:4 ratio. (The United States spent a total of $1 billion on textbooks in its entire 200-year history. In the next five to six years alone, the nation will spend $1 billion on computer-assisted education. Only one-third of this will be bought by and for schools; the remaining two-thirds will be provided by wealthier parents for their own children, thus creating an educational inequity far more debilitating than physical segregation.)

- Federal grants will provide a major portion of the funding for job training and equipment (including computers) in poor school districts.

- Women, particularly married women, will enter the work force at a faster rate than any other group within the population.

- More businesses will be involved in schools, including apprenticeship training.

- Older citizens (over 55) increasingly will become students in public schools, job-training programs, and community source programs.

- A core, nine-month program will be offered in elementary and high schools, shifting electives to later in the lengthened day and to summer sessions.

- Teachers' salaries on an annual basis will be raised to within 10 percent of parity with other professionals requiring college degrees.

Impact on Business and Industry

New Jersey's Office of Management and Budget (OMB) is alert to changes in demographics and business community needs because these changes affect the establishment of state budgets. In Trends and Issues (March 1986), OMB included the following "Outlooks":

- New Jersey Economy Moving in Full Force;

- Transition from Manufacturing to Service Based Economy Continues;

- Minority Education Presents Added Challenges;

- Changing Role of Clerical Workers Anticipated;

- Peaks and Valleys in Demand for Construction Workers;

- Proportion of Elderly Population Increasing;

- Computer Use Continues to Grow; and

- Tourism Booming throughout the State.

The National Alliance of Business (NAB), in a publication entitled Employment Policies: Looking to the Year 2000 (1986), spoke for the business community and said that vocational education must be responsive to the changing needs of business. NAB also explained that vocational education should not be limited to public school programs. Partnerships are recommended:

> As we look to the year 2000, the unfolding demographic and economic scenarios cry out for action. It is a call that requires a partnership between business, a variety of government institutions, labor and community organizations. To date these institutions have often operated independently and even at cross-purposes. At the very least, their efforts have been characterized by overlap and duplication.

Strong evidence of changes in society, in the environment, and in business and industry suggest the need for changes in our schools. Expert opinion about changes in vocational education clearly identifies this as a period calling for reexamination.

A CALL FOR REVIEW OF VOCATIONAL EDUCATION

A summary of the major national or "blue ribbon" studies on the condition of American education is presented here. (Ascher and Black, 1986).

The national reform reports present conflicting views on the role of vocational education at the secondary level:

Those national reports which addressed vocational education found several shortcomings. Boyer's High School: A Report on Secondary Education in America (1983) describes vocational education as the "unfulfilled promise" and finds "a tenuous link between vocational education and job opportunities." Vocational education is cited as being irrelevant or inadequate and is claimed to short-change students. In a document presented by the American Vocational Association (1986), the U.S. Department of Education reported that, "while participation in some vocational programs (most notably office occupations) tends to result in favorable employment outcomes, in most areas any initially superior performance of vocational graduates, relative to graduates who did not take vocational education, tends to disappear after a few years in the labor force."

The Unfinished Agenda: The Role of Vocational Education and the High School (1984) was prepared by the National Commission on Secondary Vocational Education and sponsored by the National Center for Research in Vocational Education. The report was funded by the U.S. Department of Education because many vocational educators felt that the earlier national reports did not properly consider vocational education. It states:

> Our society is obsessively concerned with higher education as a preparation for work and downgrades the intrinsic, lifelong value of education. Our secondary schools reflect this obsession by valuing only the college bound. Such a narrow focus ignores the fact that approximately 80 percent of the jobs in America do not require a college degree, and most students will not obtain one.
>
> Vocational education must be a significant part of a quality high school education. Many young people enter high school already turned off to the learning process. More of the same is not the answer. Motivating students not only to do better, but also, in many cases, to remain in school, is a critical task of education. Vocational education is frequently the catalyst that reawakens their commitment to school and sparks a renewed interest in the academic skills. We believe vocational education can help prepare all of our young people for adult life, not only at work and at home, but also in how they use leisure time.

The future requires academic skills.

Leaders from the business community indicate the need for students with strong basic skills. Timpane's article, "Business Has Rediscovered the Public Schools", in Phi Delta Kappan, (January 1984) supports the view that students must acquire general knowledge rather than skills specific to an industry.

Crohn's report Technological Literacy in the Workplace (1983) indicates future workers will face complex problems. It states: "To perform successfully in the marketplace, most workers will need to be resilient, versatile, independent and able to interact cooperatively and ethically with others."

The Southern Regional Education Board, representing 15 southern states, "recommended that high school vocational programs in member states place more emphasis on basic academic skills and less on preparing students for specific jobs" (Olson, 1985).

Secretary of Education William J. Bennett and the U.S. Department of Education published What Works in 1986. The report makes this comment on the subject of "Preparation for Work":

> As new technologies make old job skills obsolete, the best vocational education will be solid preparation in reading, writing, mathematics, and reasoning. In the future, American workers will acquire many of their job skills in the workplace, not in school. They will need to be able to master new technologies and upgrade their skills to meet specialized job demands. Men and women who have weak basic skills, or who cannot readily master new skills to keep pace with change, may be only marginally employed over their lifetimes.

Business wants basic skills and positive attitudes.

Employers indicate that one of the most important things for vocational education to accomplish at the secondary level is to stress the teaching of reading, writing, and arithmetic. A survey of 775 members of the National Association of Manufacturers, as reported in Employer's Expectations of Vocational Education (1984) reveals:

> Many manufacturers believe that the young population's mastery of reading, writing and computational skills is unsatisfactory. Basic skills, employability skills and occupational skills are seen by manufacturers as important employee attributes ... are regarded as vital preparation for work ... and are not perceived as mutually exclusive.

A study by Starr et al. (1983) revealed that there is consistency between what respondents in the National Association of Manufacturers' survey said vocational education should emphasize and the role it has played in preparing individuals for employment. Starr identified the following five roles for vocational education:

- Employability skills development;
- Occupational skills development;
- Provision of work experience;
- Placement of program completers in jobs; and
- Basic skills development.

Vocational education has traditionally concentrated primarily on occupational skills.

Vocational education curriculum has traditionally been oriented toward providing students with occupational skills training with the purpose of preparing students for entry level employment. However, Lotto states in Building Basic Skills: Results from Vocational Education (1983):

> If the performance of vocational students in basic skills is to be improved, that outcome must be consistently and explicitly emphasized as a curricular objective. It needs to be communicated to, and understood by, all involved participants -- students, teachers, parents, and employers.

Vocational education provides an alternative for students who have been unsuccessful in academics.

Recent studies are reported and summarized in "Learning the New Basics Through Vocational Education" (1984):

> The basic skill attainment of secondary vocational students varies according to the program in which they are enrolled. The basic skill levels of potential and actual dropouts usually increase substantially when they participate in vocationally oriented programs with basic skills components.

There is ambivalence among vocational education teachers and administrative staff regarding the expansion of their role in teaching basic skills.

Many vocational educators feel that the responsibility to address basic skills rests with the elementary schools. Responses in The Public Reacts to "Education for Tomorrow's Jobs" (Hamilton, 1984) reflect the belief on the part of vocational teachers that "something must be done in the middle grades to reinforce and strengthen basic skills."

Lotto (1983) reported:

> Vocational teachers will be unable to meet the curricular objective of basic skills emphasis without retraining. Local administrators will want to provide appropriate inservice training and instructional materials to reinforce and improve teachers' expertise. Vocational teachers need to be able to provide learning and practice opportunities for their students in basic skills. Teachers need to be able to diagnose student problems and provide or obtain for students appropriate remediation.

Declining enrollment is a major concern of vocational educators.

A California study by Michael Kirst (1986) described changes in high school course offerings between 1982 and 1985. Substantially more sections of mathematics, science and foreign languages were being offered while the number of courses in home economics, industrial arts, and business education decreased. Home economics enrollments declined by 21 percent, industrial arts enrollments by 16 percent and business education enrollments by 11 percent.

A similar study by Orville Nelson (1986) described the result of new graduation standards on the number of required courses. His data indicated decreased enrollments in vocational education courses, but only in seven of 39 states responding.

Increased high school graduation requirements limit selection of vocational education courses.

The national movement toward increased numbers of credits required for graduation in the mathematics, science and communication subject areas is clear. Nelson, in School Shop (April, 1986), referred to a recent survey which indicated 43 states have increased graduation requirements for students. These increased graduation requirements may result in a single curriculum or track which could substantially diminish students' options to elect vocational courses.

Schedules which incorporate both academic requirements and vocational courses, the substitution of vocational courses for academic credit, and the design of new math and science vocational courses are options outlined by Hughes in Secondary Vocational Education: Imperative for Excellence (1984).

Intrinsic Rewards.

Often vocational educators and others assert that even if occupational preparation doesn't lead to jobs, vocational schools serve other functions very well. They argue that these other functions are reason enough for the maintenance, as is, of vocational schools. However, the literature does not adequately support this assertion.

Harry Silberman, in an article entitled "The Intrinsic Benefits: Non-Economic Returns of Vocational Education," published in the Journal of the American Vocational Association (September, 1980), described many alleged intrinsic benefits. Do vocational programs provide to students what cannot be provided in academic classes? Silberman looked for any evidence which would support a positive response but in the end, said: "Unfortunately research has not answered such questions."

On the same theme, Lotto (1985) said "Whether vocational education keeps potential dropouts in school is...uncertain...(because) many effective dropout prevention programs (operated in nonvocational programs) have vocational education and on-the-job experiences as components."

The National Center for Research in Vocational Education (1983) agreed with Lotto: "In both grades ten and twelve, obtaining one vocational credit was associated with about a tenth of a percent reduction in the probability of dropping out."

It is not suggested in this paper that vocational education offers neither economic not intrinsic noneconomic rewards. However, the National Center for Research in Vocational Education in two publications (1984) stated:

- Workers who have had relevant vocational education are significantly more productive than workers who lack such education.
- New hires with relevant school-provided vocational education required 18 percent less on-the-job training than other new hires in the same job and firm.
- New hires with a good deal of relevant job experience prior to being hired take less time to train and have higher productivity than new hires for the same job who have no such job experience.
- Secondary students with more concentration in vocational education tend to experience greater participation in the labor force, longer periods of participation in the labor force, lower rates of unemployment, fewer weeks of unemployment, and higher annual incomes.
- Nearly one-half of the secondary students with more concentration in vocational education find employment in areas related to their training.

These conclusions were based on the works of Campbell (1981), Bishop (1982), and Gardner (1982).

Finally, a recent position paper and recommendations for action entitled Education and the Economy prepared by the Council of Chief State School Officers (1986) provided insights into what that organization considered the proper contribution of education to the competitive ability of America through improved economic growth and development:

> The quality of educational services has a direct impact on the environment in which economic activity and decisions occur. The American education system has the capacity to improve the education and training of youth and adults who are entering or reentering the workforce. In order to accomplish that task, however, the system must be rededicated to the following objectives:
>
> - The basic skills of all students must be improved;
> - All students must be assisted in the development of higher-order thinking and reasoning skills required in the emerging labor market;

- All students must be helped to acquire appropriate employability skills, including positive attitudes toward work and employment;

- All students must acquire an understanding of the nature and demands of the future workplace and its effect on the students' career choices and opportunities;

- Business and industry must be provided with a highly skilled and internationally competitive workforce to ensure that employers do not resort to job reductions, unnecessary automation and other restrictions in order to attain their economic objectives; and

- Vocational education in high schools and regional technical centers must be targeted toward employment areas with job opportunities and include improved teaching of academic and reasoning skills.

THE NEED TO STUDY THE STRUCTURE OF SECONDARY VOCATIONAL EDUCATION IN NEW JERSEY

The literature cited in the previous section suggests strongly that vocational education be examined in order to meet the needs of a changing population and a new economic base. The New Jersey environment will now be examined to determine whether there are indicators of a need for change in vocational education in the state at this time.

The Need for Review

As stated in Title 18A:54-2, the Commissioner of Education is charged with the responsibility to examine vocational education periodically. The statute states:

> The commissioner shall investigate the necessity for the introduction of vocational education and report thereon, from time to time, to the state board. Subject to the approval of the state board and to such rules as it may make, the commissioner shall superintend the establishment and maintenance of schools for this form of education and supervise and approve such schools as provided in this chapter.

Since the New Jersey State Department of Education and the New Jersey State Board of Education last examined vocational education in 1980, as reported in the master plan New Windows on Learning and in the New Jersey State Board of Education's Philosophy of Vocational Education, 1987 seems an appropriate time for a reexamination of vocational education.

Indicators of Need

This section focuses on indicators of the need to study the structure of secondary vocational education in New Jersey.

1. **The basic skill achievement levels of vocational education students in New Jersey are lower than those of nonvocational students.**

New Jersey vocational education students fall below nonvocational students in basic skills attainment. Table 1 shows statewide results of the Minimum Basic Skills Test administered during the 1982-1983 school year. It indicates that on every test, students who identified themselves as "Vocational/Industrial Arts" students produced mean scores which fell below the mean scores of all of the other self-identified groups. The "Business/Commercial" students, considered to be the most proficient in basic skills within the vocational education community, fell below every group (except the "vocational/industrial arts" group) on every test. Table 2 shows that this disparity in scores between vocational and non-vocational students also exists in the mean scores of the High School Proficiency Test (HSPT).

TABLE 1

1982-1983 NEW JERSEY STATEWIDE TESTING PROGRAM MEAN TEST SCORES FOR STUDENTS ACCORDING TO THEIR RESPONSES TO THE GENERAL INFORMATION QUESTIONS

	Business/ Commercial*	College Prep/ Academic*	Vocational/ Ind. Arts*	General*	No Response*
Writing Essay Test	5.83	7.55	5.45	6.30	6.24
Writing Multiple Choice Test	73.04	86.23	70.40	75.28	71.43
Writing Total Test	74.59	83.64	72.51	76.84	75.49
MBS Reading Test	83.93	94.62	82.61	86.26	83.84
MBS Mat Test	77.78	88.69	76.31	79.20	77.70

*Based on a 10 percent sample of student responses to the following general information question asked by the Department of Education at the time of test administration.

Which one of the following best describes your present high school program?

A. Business or Commercial
B. College Preparatory or Academic
C. Vocational or Industrial Arts
D. General"

TABLE 2

1986 HSPT DATA: MEAN SCORES FOR STUDENTS CATEGORIZED BY THEIR RESPONSES TO THE GENERAL INFORMATION QUESTIONS

	Business/ Commercial*	College Prep./ Academic*	Vocational/ Ind. Arts*	General*	No Response*
Writing Essay Test	7.5	8.2	7.1	7.5	7.3
Writing Total Test	78.9	85.0	76.7	79.6	78.0
Reading Total Test	78.9	89.5	76.9	80.9	78.8
Mathematics Total Test	62.4	78.5	59.5	65.2	63.3

*Based on a 10 percent sample of student responses to the following general information question asked by the Department of Education at the time of test administration.

> Which one of the following best describes your present high school program?
>
> A. Business or Commercial
> B. College Preparatory or Academic
> C. Vocational or Industrial Arts
> D. General

2. Large variations in placement rates of students in jobs for which they were trained exist among the various vocational programs.

Preliminary analyses of the follow-up data on 1986 vocational education graduates show district and school placement rates ranging from 25 percent to 68 percent.

3. **The State of New Jersey invests more than $64 million per year (in addition to county and local funds) to support secondary vocational education.**

This is $64 million in addition to equalization aid to comprehensive high schools (many of which conduct vocational programs) and the capital outlay and current expense budgets for county vocational schools which project expenditures in excess of $135,000,000 for the 1986-87 school year. Local district and county expenditures raise this figure at least ten-fold. Table 3 (below) presents the New Jersey State Department of Education's expenditures.

TABLE 3

SELECTED VOCATIONAL EDUCATION EXPENDITURES

Expenditures	Amount
Equalization aid to County Vocational Schools. (1986-1987 State School Aid)	$37,174,540
Categorical Aid - To support excess costs of vocational education programs in Local Area Vocational School Districts (LAVSDs)	7,684,157
State Aid for vocational programs and work study programs conducted in secondary schools	7,000,000
Carl D. Perkins Vocational Education Act Funds to Support Vocational Education Programs in Secondary Schools	12,500,000
Total	$64,358,697

4. **Each year, one-third of New Jersey's high school graduates are students in full vocational education programs.**

Among New Jersey's 12th grade population in the 1985-86 school year, 27,880 of the 81,505 students (34 percent) completed full employment preparation programs. That is, one-third of New Jersey's graduates in that year were vocational education students. In addition, many students who do not enter full employment preparation programs do elect some vocational education exposure. In the 1985-86 school year, of the total grade 9-12 enrollment (358,855), 47.2 percent of the students (169,677) took at least one vocational education course.

Table 4 shows past and projected enrollments in New Jersey schools.

TABLE 4

Enrollments and Projected Enrollments
New Jersey Public Schools

1976-1987

Year	Total All Grades	9-12	Number of all 9-12 Students Electing Some Vocational Education Exposure	Percentage of all 9-12 Students Electing Some Vocational Education Exposure
1975-76	1,452,879	454,295	157,593	34.7
1976-77	1,421,348	451,757	170,463	37.7
1977-78	1,381,528	447,841	179,863	40.2
1978-79	1,337,327	442,561	178,132	40.3
1979-80	1,288,259	428,741	175,770	41.0
1980-81	1,246,008	413,884	180,988	43.7
1981-82	1,204,718	397,700	180,635	45.4
1982-83	1,172,520	380,932	174,490	45.8
1983-84	1,147,841	371,113	170,340	45.9
1984-85	1,129,223	364,741	172,786	47.3
1985-86	1,116,194	358,855	169,677	47.2
1986-87	1,103,303*	346,363*	162,790*	47.0*

*Projections

5. **New Jersey is changing rapidly from a "smoke stack" industrial base to a service-oriented economy.**

The gap between the number of available workers and available jobs is growing larger each day. The New Jersey Department of Labor's publication, October, 1986 ... The Month in Brief reports:

> All of New Jersey's employment growth during 1986 was in construction and in the service sectors, including business services, finance, wholesale and retail trade, transportation, utilities, recreational activities, government and miscellaneous personal services. In contrast, manufacturing jobs declined during most of the year, mirroring the national trend.

While manufacturing in New Jersey between 1979 and 1987 lost jobs at an even greater rate than the nation, according to statistical data soon to be released by the Department of Labor in its publication "Economic Indicators," there were increases also. Bright spots include Communications Equipment, up 27%, Printing and Publishing, up 20% and Furniture and Fixtures up 26%. Small gains were also noted in Engineering and Scientific Instruments, Lumber and Wood, Pharmaceuticals (drugs) and Food Processing (preserving). The trend is clear: there is a decline in the manufacturing sector of our economy. Workers displaced by this trend will require retraining.

6. **The demographics of New Jersey have changed and will continue to change dramatically.**

A report by the Office of Demographic and Economic Analysis, New Jersey Department of Labor (1985) indicates that substantial change will occur in the numbers of the 15- to 19-year-old population group. This age group is the primary consumer of secondary vocational education programs. The projected change in this age group from 635,300 in 1985 to 510,600 in the year 2000 represents a decline of 20 percent.

During this same period, according to the New Jersey Department of Labor report (1985), unemployment resulting from the loss of our manufacturing base and the subsequent change to a more service oriented economy will increase the need for training and retraining the adult population.

7. **In order to meet the changing needs of business and industry, people need to be trained differently.**

Some of the national reports previously discussed indicate that employers would prefer to hire workers with good work habits and basic skills and do their own occupationally specific training. However, this approach may only be viable for those large corporations with greater resources to devote to training. In New Jersey, 97 percent of all private sector employers represent businesses which employ less than 100 employers. The construction, services, wholesale and retail trade, finance, insurance and real estate sectors of the state's economy are dominated by establishments with small

numbers of employees. In both construction and services for example, 82 percent of all establishments employ less than ten employees (New Jersey Department of Labor, 1985).

8. **Other agencies also train people for employment. It is necessary to consider the public school role in relation to these other agencies.**

   A. **Other agencies compete with secondary vocational schools for a shrinking youth population.**

      Vocational education enrollments are declining. At the same time, other training agencies may have already initiated programs to address the needs of special populations such as adult, disadvantaged, and the structurally unemployed which the secondary vocational schools might also serve.

   B. **Private vocational schools are growing in number.**

      The New Jersey Department of Education (1986) reported that private vocational schools, which train high school graduates and dropouts and compete for secondary school vocational education students, have grown in number in New Jersey from 113 schools serving 23,005 students in 1976 to 204 schools serving 51,403 vocational education students in 1986. This represents an increase of 80 percent in the number of schools and an increase of 123 percent in the number of students served.

   C. **Vocational education programs in the two-year colleges have increased dramatically.**

      The New Jersey State Occupational Information Coordinating Committee (NJSOICC) (1986) reported that occupational program enrollments at the community colleges have more than doubled over the last five years and now total more than 19,000 students. Currently, students may choose from among 100 "certificate diploma" or "associate in applied science degree" programs in a wide variety of occupational fields. Some recently developed associate in applied science programs include computer integrated manufacturing, electromechanical engineering technology, hotel and restaurant management, nuclear engineering technology, television production and legal assistant.

   D. **The Job Training Partnership Act (JTPA) trains people for employment.**

      Data obtained from the New Jersey Department of Labor (1987) indicate that from January 1986 through November 1986, there were 17,479 Job Training Partnership Act Program participants. Of these participants, 9,963 were between the ages of 14 and 21. School age participants received their training part-time during the school

year and full or part-time during the summer. An additional 6,642 participants were between the ages of 22 and 54, and 874 were 55 years old or older.

E. **Governor Thomas H. Kean has established the Cabinet Level Task Force on Employment and Training.**

The Governor is concerned that the training and retraining of New Jersey's people may be duplicative and nonuniform in its goals and structure. The cabinet level task force was established late in 1986 to ensure coordination and to increase the effectiveness of employment and training programs within the state.

9. **Recent changes in graduation requirements and remediation classes related to the High School Proficiency Test (HSPT) have had an effect on some vocational programs.**

High School Graduation Requirements. As part of the effort to increase the skill levels of graduates of New Jersey high schools, the State Board of Education increased the number of high school credits required for graduation from 92 to 110. This increase in requirements will begin with the entering ninth-grade class of 1988-89. Additional course requirements are to be phased in over three years as follows:

- A year of world history and cultures beginning with the freshman class of 1988-89;

- A second year of science, starting with the freshman class of 1989-90; and

- A third year of mathematics, beginning with the freshman class of 1990-91.

Some shared-time county vocational educators claim they will be adversely affected by the increase in graduation requirements due to the time required for transporatation of students. Most full-time vocational schools, local area vocational schools and comprehensive high schools have indicated that they can adjust to the change.

The implementation of the High School Proficiency Test (HSPT). The HSPT is part of the state's recent emphasis on the need for higher order skills. The impact of remedial and developmental instruction associated with this emphasis on higher order skills has resulted in concern from the shared-time county vocational educators. They fear their students may be retained at the sending schools for remediation or instruction, and claim the result will be fewer students in the future.

The full-time county vocational schools, which serve students in grades 9 through 12 are concerned that they are identified as the place where HSPT failing ninth-grade students attend school. They have expressed concern over their inability to educate their students in grades K-8.

10. **Vocational education in New Jersey schools is provided by four systems.**

New Jersey provides vocational education through four types of schools: the full-time county vocational school; the shared-time county vocational school; the local area vocational school district (LAVSD); and the comprehensive high school. The New Jersey Association of School Administrators indicated in a paper (1985) that there is unnecessary and unfair variation in funding and regulation of these four systems and that equity is needed. This paper was developed by a committee established by the New Jersey Association of School Administrators (NJASA) representing all of the administrators in vocational education. The purpose was to make recommendations which would result in the equalization of the regulation and funding of all vocational programs, regardless of which of the four types of schools in which the vocational programs are provided.

The committee recommended deregulation of the local area vocational school districts (LAVSDs) to a level equal to the regulation level of county vocational schools. The county vocational school representatives made it clear that they would support such regulatory equity only if it were accompanied by funding equity, i.e., only if the county schools were provided categorical aid equal to the aid received by the LAVSDs. The committee prepared a paper on the issue, but no connection between proposed changes and an increase in effective education was made.

CONCLUSIONS: INTO THE TWENTY-FIRST CENTURY

Originally, vocational education programs focused on the development of job-related skills for an emerging industrial economy. The development of those skills was, at that time, adequate to enable individuals to be employed, productive members of society. For students in vocational education programs, the development of academic skills was of secondary importance. Over time, the emphasis on vocational skills rather than academic skills became less utilitarian. Keeping New Jersey's business and industry competitive now requires a vocational education system that combines academic training, training in employability skills and training in occupational skills.

Business and industry want education for employment to include good basic skills preparation. This is due to a rapidly accelerating rate of technological advancement and the need for employees to be able to adjust to change on the job. The occupational skills component of education enables the student to enter the job market and the academic component enables the student to function in a democratic society.

Educators have responded to the changing needs of students and business in a variety of ways. For the most part, however, these changes have been adaptive rather than systematic. As a result, there are various structures for vocational education in the United States. New Jersey, therefore, is not alone in providing secondary level vocational education in several different ways.

Regardless of the structure, vocational education in New Jersey should be based on the following goals, principles and planning assumptions which reflect changing demographics and the changing needs of business and industry:

Goals

- All secondary vocational education students will attain the same level of basic skills as nonvocational students in New Jersey.

- Secondary vocational education occupational training programs should result in the student obtaining a job in the occupation for which he or she was trained, or in a related job.

Principles

- Educational programs for all public school students must prepare students for a future filled with rapid and dramatic change. When students leave New Jersey public schools, they must have a broad base of skills.

- Occupational skills without the basic skills do not prepare students for an uncertain future. Students face a lifetime of

training and retraining in the workplace. New Jersey schools must provide a broad base on which that training can be built. Students must be able to read, write and compute whether in a vocational education class or a nonvocational class.

- Vocational programs are important options for some students. However, those students must also be required to meet the new, more rigorous standards of the HSPT and the core graduation requirements which provide a broad foundation for all students.

- Vocational education programs should be designed to prepare students for entry into jobs for which they have been trained. As a consequence of devoting instructional time and resources to vocational education programs, students must be assured that their education will result in employment in jobs for which they were trained. Therefore, the content of vocational education programs must be sensitive to job market requirements.

Planning Assumptions

- Graduates of vocational education programs must be capable of being retrained because the future will bring rapid changes in requisite job skills.

- Vocational education should not be limited to public school programs or any other single agency programs. Partnerships among agencies and with the private sector are essential to appropriate vocational education.

- Vocational education programs must be responsive to the changes occurring in New Jersey demographics and the needs of New Jersey's business and industry.

The demands of business and industry are ever-changing, as are population demographics. Academic reforms and the growth of competitive training agencies indicate that an examination of the structure for secondary vocational education in New Jersey is in order. Without a comprehensive plan, vocational education will waste its energy on false starts and misguided initiatives. A comprehensive plan for the structure of vocational education to serve secondary students and to build a supportive work force for business and industrial growth in New Jersey is needed.

DEVELOPING A COMPREHENSIVE PLAN FOR SECONDARY VOCATIONAL EDUCATION IN NEW JERSEY

Based on the demographic changes and changes in the business and industry environment described in this paper, the New Jersey State Department of Education will examine the structure of secondary vocational education in the public schools of New Jersey. Based on this examination, a comprehensive plan for secondary vocational education in New Jersey will be developed.

The formulation of a comprehensive plan will include the participation of diverse groups whose information and perspectives are vital to the development of a realistic plan for New Jersey. A panel of national and state experts, called the Panel on Secondary Vocational Education in New Jersey, will be appointed by the State Commissioner of Education. This group will draw upon the extensive knowledge of New Jersey's educational leaders at the state and county levels, as well as on the panel's own national perspective and experience.

Panel members will review relevant documents, solicit input from the public through hearings, and prepare their recommendations. At the conclusion of the panel's work, the New Jersey State Department of Education will develop a comprehensive plan for secondary vocational education in New Jersey.

How The Comprehensive Plan Will Be Developed

1. This paper will be submitted to the panel for its consideration. Additional information on the existing structure of vocational education in New Jersey and on the educational, economic, social and political structure of the state will be available to the panel through public testimony and written materials.

2. The panel will use all of this information to prepare recommendations for the State Commissioner of Education.

3. Following receipt of the panel's recommendations, a comprehensive plan for secondary vocational education in New Jersey will be developed by the New Jersey State Department of Education.

Charge To The Panel On Secondary Vocational Education In New Jersey

The panel will present recommendations for a future structure and delivery system for secondary vocational education in New Jersey which is responsive to the goals of the State Board of Education. The panel will provide rationale and supportive data for all recommendations made. These recommendations will be presented to the State Commissioner of Education.

Operational Plan for The Panel on Secondary Vocational Education in New Jersey

Panel Membership

Panel members will be selected and appointed by the Commissioner of Education and shall include recognized state and national vocational education and nonvocational education leaders and leaders from business and industry. The membership shall include:

- Nationally prominent business, industry and economic development leaders (large and small business);
- Nationally prominent vocational educators;
- Nationally prominent nonvocational educators;
- New Jersey labor union members;
- New Jersey State Council on Vocational Education member;
- Governor's Cabinet Level Task Force on Employment and Training member; and
- New Jersey Association of School Administrators members (representing each of the four existing secondary vocational education systems in New Jersey).

The membership shall also include one member of:

- New Jersey Education Association;
- New Jersey School Boards Association;
- New Jersey Congress of Parents and Teachers Association;
- New Jersey Association of School Business Officials; and
- New Jersey Principals and Supervisors Association.

Staff members from the Department of Education will be assigned to provide assistance to the panel.

Procedures

Meetings: The panel will meet at least three times, as detailed in the action plan.

Minutes: The minutes of each meeting will be kept by Department of Education staff. Copies will be mailed to panel members and the Commissioner of Education within two weeks following a meeting.

Timelines: The recommendations prepared by the panel will be submitted to the Commissioner of Education at the State Board of Education meeting of April 6, 1988.

Action Plan and Timeline For the Preparation Of The Comprehensive Plan For Secondary Vocational Education In New Jersey

ACTIVITY	RESPONSIBILITY	COMPLETION DATE
Commissioner announces planning process.	Commissioner Ascher	July 1, 1987
Appointment and confirmation of panel members.	Commissioner	August 5, 1987
Paper on the need for a study of the structure of secondary vocational education in New Jersey will be sent to panel for review.	Ascher	August 5, 1987
Panel convenes initial meeting with department staff to discuss process.	Ascher	September 21, 1987
Panel discusses this paper and hears testimony from school personnel and others. Time blocks will be set aside for presentations by groups representing each county.	Chairperson	September 22-25, 1987
Panel members individually prepare draft recommendations and transmit these to chairperson. Each panel member receives each individual's recommendations.	Chairperson	October 30, 1987
Panel convenes second meeting to discuss individual recommendations and reach consensus on draft recommendations.	Chairperson	January 5-7, 1988
Draft recommendations prepared and mailed to panel members.	Chairperson	February 12, 1988
Panel members individually review the draft recom-	Chairperson	March 4, 1988

ACTIVITY	RESPONSIBILITY	COMPLETION DATE
mendations and submit comments to chairperson.		
Panel convenes meeting and prepares final recommendations.	Chairperson	March 10-11, 1988
Panel chairperson submits recommendations to Commissioner of Education at the State Board of Education meeting.	Chairperson	April 6, 1988

The New Jersey Department of Education prepares the comprehensive plan for secondary vocational education in New Jersey.

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